

Field Review Comment Metric

Originating Office: AIR-130	Document Description: TSO-C209	Project Lead/Reviewer Dara Gibson	Reviewing Office: ANM-100B	Date of Review: 3-24-16
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	Commenter	Section # and Page #	Comment	Suggested Change and Rationale	Disposition
1.	Ray Mei, ANM-130S	Section 3.d, page 2 “You may use a different standard environmental condition and test procedure than RTCA/DO-160G, provided the standard is appropriate for the EFIS.”	This vague reference to a different standard is too broad and may mislead the applicant.	Amend the statement such as “provided the standard is appropriate for the EFIS, and accepted by the responsible ACO.” Rationale for change is to be clear that a standard considered appropriate by the applicant may not be accepted by the ACO.	Not accepted. The language used is currently in Order 8150.1C.
2.	Ed Kolano, ANM-160S	Section 1, page 1	The word “first” is extraneous.	Remove “first.”	Not accepted. The language used is currently in Order 8150.1C.
3.	Ed Kolano, ANM-160S	Section 2, page 1	Clarify. The timing conflicts with section 3.	Rewrite as “New applications submitted on or after the effective date of this TSO.”	Not accepted. The language used is currently in Order 8150.1C.
4.	Ed Kolano, ANM-160S	Section 3a, page 1	Not the proper term, “heads up display.”	Change to “head up display.”	Accepted. Changed to head-up display.
5.	Ed Kolano, ANM-160S	Section 3a, page 1	The reference to two “functions” is misleading. A fuel gauge that changes color when quantity is low provides two functions but probably does not meet the intent of this requirement.	Change “functions” to “different parameters.”	Not accepted. The use of “functions” is consistent with the MPS.

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6.	Ed Kolano, ANM-160S	Section 4a, page 2	The intent is to include the requirements of section 45.15(b), not the content of the regulation.	Change to "...information required in . . ."	Not accepted. The language used is currently in Order 8150.1C. The only addition to the text was the requirement from the MPS.
7.	Ed Kolano, ANM-160S	Section 5a, page 3	5.a(1) through (7) should be a list of items, but (2) is a directive. Inconsistent.	Change 5.a(2) to "Detailed description of any deviations."	Not accepted. The language used is currently in Order 8150.1C.
8.	Ed Kolano, ANM-160S	Section 5.a(4), page 3	"reference the following" is directive and unnecessary.	Remove "reference the following."	Not accepted. The language used is currently in Order 8150.1C.
9.	Ed Kolano, ANM-160S	Section 5.f, page 4	This item is a directive among a list of required items.	Change "Identify" to "Identification of."	Not accepted. The language used is currently in Order 8150.1C.
10.	Ed Kolano, ANM-160S	Section 6, page 5	"Besides" means relative position.	Replace "Besides" with "In addition to."	Not accepted. The language used is currently in Order 8150.1C.
11.	Ed Kolano, ANM-160S	Section 2.3, page 17	"The use of the word warning(s) in this document could mean a warning, caution, or advisory level alert." Allowing the term "warning" to refer to non-warnings	Throughout the document, use the word "alert" as the generic reference word for warnings, cautions, and	Not accepted. The committee decided to use the word warning as the generic reference

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			will cause confusion and interpretation errors.	advisories.	word.
12.	Ed Kolano, ANM-160S	Section 3.6, page 18	Reference is made to “controls,” “display controls,” and “EFIS controls.” It is not clear whether these are different controls or merely inconsistent references.	If these are interchangeable terms, select one and use it consistently throughout the document. If these are different controls, define them.	Not accepted. SAE/AS6296 is published. They are interchangeable.
13.	Ed Kolano, ANM-160S	Section 3.7, page 19	This section omits a requirement to inform the pilot when the system is in self-test mode.	Require clear indications to the pilot when the system is in self-test mode.	Not accepted. SAE/AS8034B, paragraph 3.7 states, “In-flight, self-test activation features shall include a means to alert the pilot or appropriate flight crew member of this mode of operation.”
14.	Ed Kolano, ANM-160S	Section 3.12.4, page 21	Identifying when critical information exceeds display format functional limits is insufficient.	Include requirements for enabling pilot access to critical information that exceeds display format functional limits.	Not accepted. SAE/AS8034B, paragraph 3.12.4 states, “A means shall be provided to identify when critical displayed information exceeds display format functional limits.” That

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					means does not exclude enabling pilot access.
15.	Ed Kolano, ANM-160S	Section 4.1.1.2, page 23	The first sentence connects readability with accuracy of the EFIS display.	If “accuracy” is meant to be resolution, use resolution. If “accuracy” refers to the data source, it should be disassociated from the display.	Not accepted. This language came from the original TSO/MPS.
16.	Ed Kolano, ANM-160S	Section 4.1.1.4, page 23	Reference to the word “dial” would not apply to linear or digital indicators. NOTE: This comment applies to several appearances of “dial”.	Replace “dial” with “airspeed indicator.”	Not accepted. This language came from the original TSO/MPS.
17.	Ed Kolano, ANM-160S	Section 4.1.1.5, page 23	The word “positive” is vague. What is a positive means or a positive indication? NOTE: This comment applies to many appearances of “positive” throughout the document.	Replace the first sentence of the second paragraph with “For circular displays, there shall be no ambiguity when the indicator is at the maximum or minimum position, including the maximum over-travel of 10°.” Replace “positive” with “clear” or “unambiguous” in the second sentence of the second paragraph.	Not accepted. This language came from the original TSO/MPS.

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18.	Ed Kolano, ANM-160S	Section 4.1.1.5, page 23	Reference to “calibrated range” in this airspeed section can be confusing. Airspeed system calibration has nothing to do with the displayed airspeed range on any airspeed indicator.	Replace “calibrated” with “displayed” in the second sentence of the second paragraph.	Not accepted. This language came from the original TSO/MPS.
19.	Ed Kolano, ANM-160S	Table 1, page 24	It appears “or mph” is missing from the second column title.	Insert “or mph.”	Not accepted. Table 1 is on page 17 and “mph” is not missing.
20.	Ed Kolano, ANM-160S	Section 4.1.3.4, page 26	There’s no mention of relative positions of hard or soft-keys for barometric adjustment, such as “the key that increases the barometric value should be to the right or above the key that decreases the value.”	Add relative positions of keys/buttons.	Not accepted. The language used came from the original TSO/MPS.
21.	Ed Kolano, ANM-160S	Section 4.1.3.5, page 26	It is not clear whether “mode” refers to units of measure (feet-meters) or static source or standard (29.92) setting.	Clarify the definition of “mode.”	Not accepted. This language came from the original TSO/MPS.
22.	Ed Kolano, ANM-160S	Section 4.1.4.3, page 30	It is not clear whether the pitch attitude adjustment is intended for the installer or the pilot. A zero pitch attitude is a physical orientation of the airplane. Allowing pilot adjustment (except for parallax correction, which doesn’t apply here) could lead to disorientation and other flying problems.	Clarify the purpose of and access to the pitch attitude adjustment.	Not accepted. This language came from the original TSO/MPS.
23.	Ed Kolano, ANM-160S	Section 4.1.3, page 26	The relative size of the altitude digits is not addressed, i.e., XXXxx or XXxxx.	Specify the relative size of the digits.	Not accepted. Paragraph 4.1.3 is only a

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					title paragraph for Altimeter.
24.	Ed Kolano, ANM-160S	Section 4.2.3.3, page 37	The note requires auto-sensing of a back course condition but does not address a requirement to display the back course status.	Add the requirement to display back course status.	Not accepted. This language came from the original TSO/MPS.
25.	Ed Kolano, ANM-160S	Section 4.2.7.2, page 39	“Blue” and “cyan” are often used interchangeably in FAA documents. Only “blue” is mentioned in this section.	Clarify whether cyan is also a discouraged color.	Not accepted. This language came from RTCA DO-229D and was used by permission.
26.	Ed Kolano, ANM-160S	Section 4.2.7.6, page 40	The expression “not critical to the safety of instrument approaches” is vague. While compromised guidance would qualify, what about an engine temperature exceedance or other ship’s system not related to flying the approach?	Clarify what “not critical to the safety of instrument approaches” includes.	Not accepted. This language came from RTCA DO-229D and was used by permission.
27.	Ed Kolano, ANM-160S	Section 4.2.7.7, page 40	Listing messages “chronologically” can be interpreted as earlier on top or later on top.	Specify that later alerts should appear above earlier alerts within the same alert category.	Not accepted. This language came from RTCA DO-229D and was used by permission.
28.	Ed Kolano, ANM-160S	Section 4.2.7.11, page 41	The phrase “turn has begun” is specified to indicate a navigation-required turn should be in progress. The system is not telling the pilot the airplane has begun a turn.	Replace “the turn has begun” with “a turn should have begun” or “a turn should be in progress.”	Not accepted. This language came from RTCA DO-229D and was used by permission.
29.	Ed Kolano, ANM-160S	Section 4.2.7.12, page 42	It is not clear whether the required annunciation refers to the approach of the	Clarify what the annunciation is supposed to	Not accepted. This language came from

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			end of the offset path.	annunciate.	RTCA DO-229D and was used by permission.
30.	Ed Kolano, ANM-160S	Table 9, page 43	“Angular/Linear” is not compatible with the column heading.	Replace with the appropriate full-scale deflection value.	Not accepted. This language came from RTCA DO-229D and was used by permission.
31.	Ed Kolano, ANM-160S	Section 4.2.8.1.9, page 48	“Any navigation information within the EFIS selected map range shall only be removed from the display by crew action.” It is not clear whether this means ONLY the pilot can remove navigation information or the pilot can remove ANY navigation information.	Re-word to better convey the intent.	Not accepted. Only the pilot or co-pilot can remove any navigation information.
32.	Ed Kolano, ANM-160S	Section 4.2.8.2.6, page 50	The phrase “whether the aircraft is behind or ahead of the active fix” can be confusing as to where the plane is relative to the fix. Further, defining an imaginary line that’s perpendicular to the path at a fix that joins legs with different tracks is unclear.	Replace “whether the aircraft is behind or ahead of the active fix relative to an imaginary line perpendicular to the defined path” with “whether the aircraft is moving toward or away from an imaginary line passing through the active fix that bisects the angle formed by the path legs connected at the fix.”	Not accepted. SAE/AS6296 is published. Your suggested text will be submitted for the next revision.
33.	Ed Kolano, ANM-160S	Section 4.3.2.1.2, page 57	It is not clear whether the initialization and/or reset capability must be available	Clarify when the initialization/reset function	Not accepted. The language used came

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			with the engine off and on or when the plane is stationary or moving on the ground or in the air.	must be available.	from the original TSO/MPS.
34.	Ed Kolano, ANM-160S	Section 4.3.2.1.2, page 57	There is no difference between calculated fuel remaining and actual fuel remaining.	If the totalizer can display fuel remaining, it should be clearly differentiated from the fuel quantity remaining derived directly from fuel tank quantity sensors.	Not accepted. 4.3.2.1.2 states that, "A counter shall be employed to indicate either the fuel consumed or quantity remaining. A means shall be provided to initialize or reset the fuel consumed or quantity remaining indications."
35.	Ed Kolano, ANM-160S	Section 4.3.5.1, page 59 and others	The document is inconsistent when providing examples. In 4.3.5.1, only pointer-dial movement is addressed; in 4.3.3.1, vertical, horizontal, and circular scales and pointers are addressed.	Provide consistent treatment of moving indicators in all sections.	Not accepted. The language used came from the original TSO/MPS. During the next revision we will modify the text to be more consistent.
36.	Ed Kolano, ANM-160S	Section 4.3.6.1	This section appears to prohibit alternate indications of fuel/oil quantity such as tapes.	Clarify whether this omission is intentional.	The original language in SAE/AS405 allowed for a pointer and or a counter. After many rounds of discussion, it was determined that a

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					pointer and digital readout was sufficient. This does not prohibit an applicant from requesting a deviation to display this data via other means. This was an industry consensus.

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1.	T. Ebina / ANM-130L	Environmental Qualification, Section 3d, page 2	This section specifies RTCA/DO-160G for environmental qualification tests. If an applicant proposes to voluntarily use RTCA/DO-160 H or later versions in the future, the FAA should approve a deviation. However, the FAA is unable to approve any deviation from the volunteered test requirements since they are not required for TSO authorization.	Add a note indicating that the FAA is unable to approve any deviation from the volunteered test requirements since they are not required for TSO authorization.	Not accepted. RTCA/DO-160H does not currently exist. An applicant can always request, via deviation, to use a different version of RTCA/DO-160.
2.	T. Ebina / ANM-130L	Software Qualifications, Section 3e, page 2	This section allows an applicant to use either RTCA/DO-178B or RTCA/DO-178C for developing the software life cycle processes and data. It must align the version of RTCA document that is effective at the time of a TSO effective date.	Revise this section to address only the RTCA/DO-178C. Compliance with either RTCA/DO-178B or RTCA/DO-178C does not align with the FAA policy.	Not accepted. An applicant can use RTCA/DO-178B or C. The software specialists in AIR-100 have determined that either version is acceptable.

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1.	Jen Pei (ANM-106B)	Section 3.b, page 1	Since the TSO does not specify a minimum failure condition classification for the EFIS system (i.e. Level A, B and C), then the TSO should require the applicant to submit a System Safety Assessment as part of the TSO data to substantiate the software design assurance level for DO-178B/C (section 3.e) as well as for electronic hardware design assurance level for DO-254 (section 3.f).	Revise section 3.b to add requirement to submit a system safety assessment for the determination of the failure condition classifications in which the system is designed to by the applicant.	Not accepted. Depending on the intended installation, the minimum failure condition may vary. The language currently used is consistent with Order 8150.1C.
2.	Shohreh Safarian (ANM-106B)	Section 3.9.3, page 19	Only addresses System Safety Assessment (SSA).	Suggest addressing System Security Assessment, due to increased connectivity in flight deck.	Not accepted. AIR-100 is working in other areas to address security.

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1.	David Jenson	TSO 5.g, pg 4	States this is not required for LODA applicants.	Should this statement remain?	The language used in the TSO is consistent with Order 8150.1C.
2.	David Jenson	TSO, global comment	GAMA Pub 12 should be referenced as an acceptable document for use in designing an EFIS for GA.	Add reference to TSO for GAMA publication 12, RECOMMENDED PRACTICES AND GUIDELINES	Not accepted. SAE/AS6296 is published. The referenced material does not impact the MPS of the TSO.
3.	David Jenson	AS 6296, section 1, para 1 pg 11	Reference to ADS-B should be specific.	Reference should be ADS-B In.	Not accepted. AS-6296 does not address ADS-B (In or Out).
4.	David Jenson	AS 6296, section 2.2.2.3, pg 17	Reference to TSO-C165a. The specification states it does not include the Electronic Map Display function.	Reference to this function should be removed since it is not addressed in the document.	Not accepted. TSO-C165a is referenced in 4.2.8.1 Requirements Related to Electronic Map Display.
5.	David Jenson	AS 6296, section 3.9.1, pg 19	A blank display or an "X" across the display.....	Should this state a "red X"? This is what is done typically to indicate a malfunction or loss of function.	Not accepted. The language as written has been used in numerous minimum performance standards.
6.	David Jenson	AS 6296, section 3.12.4, pg 21	Shouldn't a display be designed to handle all critical information requested to be displayed?	Was the word "critical" meant to be in this requirement?	Yes.

Return Comments to: Dara Gibson, AIR-134

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1.	S. Gesele ANE-172	Section 3, Page 1	<p>Under the TSO program, applicants must apply for all applicable TSOs pertinent to the functions the article provides (AC 21-46, par 5-4).</p> <p>It appears the purpose of TSO-EFIS is to allow an applicant to use AS6296 in lieu of applying for TSOA for all individual TSOs covered by the EFIS (TSO-C2d, -C3e, -C4c, -C6e, -C8e, etc, etc).</p> <p>If this is the case, then there will be a discrepancy between our published guidance and TSO-EFIS.</p>	If TSO-EFIS is to be used instead of applying for multiple partial TSOAs, then I recommend TSO-EFIS be updated to indicate that the applicant is not to apply for partial TSOA for the other TSOs that contain the display functions listed in AS6296.	Not accepted. An applicant can use either this new TSO or still use multiple TSOs.

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1.	G. Schwab ASW-112	Section 3.a., Page 1	Suggest clarification on statement about this TSO not being intended to address single function displays. It is unclear, to this reader, whether a required function being displayed on an EFIS meeting this new TSO, must also meet the TSO requirement of a stand-alone instrument performing that same required function, e.g. airspeed indicator also must meet TSO-C2D?	Recommend adding information on whether, or not, required functions being displayed on the EFIS must meet the single instrument TSO that performs that same function.	Not accepted. If the applicant is using this TSO for the display aspects of their equipment, then they would not need to use the single instrument TSO for their display requirements. It states that two functions are required in order to use this TSO.
2.	G. Schwab ASW-112	Section 3.d, page 2	Need to emphasize appropriate selection of environmental qualifications levels can be significantly different depending upon intended aircraft. Rotorcraft environment is significantly worse and this has proven to be problematic.	Add note alert TSO applicant that the more severe environmental qualifications will be necessary for rotorcraft installation approvals.	Not accepted. The language used is currently in Order 8150.1C.
3.	G. Schwab ASW-112	Section 5.a.(3), page 3	Why is the TSO addressing unique aspect of the installation?	This paragraph needs to be re-worded, or deleted. It appears to infer installation aspects are part of the TSO. This needs to be clear that installation approval is a separate effort from TSO approval.	Not accepted. The TSO manufacturer needs to provide installation instructions and any limitations associated with their equipment. "Installation of this article requires separate approval," is also mentioned in

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					paragraph 5.a.(3).
4.	G. Schwab ASW-112	SAE AS6296 (Draft), Section 1, p11	Functions not covered by this document listed are functions that would typically be displayed by EFIS. Why?	Why were these excluded when so many others are listed in Section 2?	Due to the time frame and amount of work it would take to include them, we decided to leave them out.
5.	G. Schwab ASW-112	AS6296 Section 2.1	AS6296 is identified as governing document to dozens of others. See following comment addressed to AS6296 in general.	Was a detailed review performed against all listed documents to ensure no regulatory requirements are contradicted by AS6296?	Yes.
6.	G. Schwab ASW-112	AS6296 General Document	The RSS was not afforded sufficient time to review the content of all the referenced documentation, beyond the actual TSO. Installation approvals will continue to be held to the existing and future advisory circulars and guidance for installations, regardless of whether or not the equipment being installed holds a TSO	Comment only.	The review period for each directorate was 30 days. ASW-100 was given an additional 5 days.

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1.	Flores/ACE-119W	TSO-CXXX, Section 3.b., Page 1 and 2	The section Failure Condition Classification says to document the failure conditions. Most applicants will understand how to classify failure conditions, but new or inexperienced TSO applicants may not.	Suggest referencing FAA guidance and or SAE/RTCA guidance within this paragraph.	Not accepted. The language used is currently in Order 8150.1C.
2.	Flores/ACE-119W	TSO-cXXX, general comment	Will this TSO eliminate the need to list multiple TSOs on an EFIS system? Will it continue to be acceptable for TSO applicants to list all of the other applicable TSOs? Will the display aspects of the other TSOs be obsolete?	Suggest clarifying what is expected for this TSOs use. Clarify if an applicant should continue to list multiple TSOs.	Not accepted. An applicant can use either this new TSO or still use multiple TSOs. Many applicants will continue to make modifications to pre-existing boxes and it may be easier for them to just add an additional TSO instead of going to the new EFIS TSO. Hopefully, for new equipment coming down the pipeline, applicants will use TSO-CEFIS instead of multiple TSOs. The display aspects of the other TSOs were captured in this EFIS TSO. We also made some provisions to eliminate the

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					need for deviations since many use electronic means as opposed to white matte finish, for example.
3.	Flores/ACE-119W	SAE AS6296, general comment	In the SAE document they mention that they extracted requirements from multiple sources in this document including various TSOs. It is unclear how they will obsolete the display aspects in the other TSOs. Also, they mention that they have left some display aspects intact in other TSO/MOPs but they are unclear on which. It would see they need to very clear on what these are.	Suggest clarifying the use of this document with other TSO approvals.	Not accepted. The rationale in the MOPS states, "This document is intended to facilitate EFIS TSO authorizations by addressing only the EFIS display requirements for a broad set of aircraft functions." Also on the declaration of EFIS function form, we included a reference column to show how the legacy TSOs/MPS link to the requirements in AS6296.
4.	Flores/ACE-119W	SAE AS6296, Section 4., Page 22	The first paragraph states the grouping is for convenience and not all functions within a group are required. Are there a minimum number of functions required?	Suggest clarifying what minimum functions and or groups required for TSO approval. A paragraph may be more appropriate in the TSO than the MOPs itself.	Not accepted. The MOPS and the TSO states that you must have two (2) functions in order to use the TSO/MPS.
5.	Flores/ACE-119W	SAE AS9296, Section 4.4.2, Page 61	For weather radar, should use of colors be discussed? Many issue papers have	Suggest adding section or referencing other FAA	Not accepted. This language used came from

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			been written around the use of the color red in weather radar.	guidance.	the original TSO/MPS.
6.	Rich Rejniak, ACE-119W	Section 3 REQUIREMENTS.	As written “(AS) 6296 Electronic Flight Instrument System (EFIS) Displays, dated (Month, day, year)”	AS6296 Electronic Flight Instrument System (EFIS) Displays, is not dated (i.e. Month, day, year), however it is identified as “Issued 2016-03”. Suggest replace with “(AS) 6296 Electronic Flight Instrument System (EFIS) Displays, Issued 2016-03”.	Not accepted. At the time the clearance record, draft TSO, and MOPS were sent out for field review, the MOPS was not published. Now that it has been published the date of issuance will be included.
7.	Rich Rejniak, ACE-119W	Section 3 REQUIREMENTS.	Within this document, you refer to specific paragraphs or sections of the reference documents (i.e. AS6296 and AS8034B). Since the FAA does not control these documents, and the FAA is referencing specific points within these documents, I suggest you add a second note within Section 3 of this document to reduce any ambiguity as the SAE documents may change and the intended reference may not be what is in the latest versions of the SAE document.	Suggest add a second note as follows: Note: The references to specific sections or paragraphs to either AS6296 and AS 8034B, or any other document referenced herein are to that of the dated reference as listed herein.	Not accepted. We do not always accept updated versions of industry standards. For example, AS-8034A was not accepted as an ELOS to AS-8034 for TSO-C113. We review each revision and modify our guidance material on a case-by-case basis.

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8.	Rich Rejniak, ACE-119W	Section 5 APPLICATION DATA REQUIREMENTS a.(1)	<p>Per section 3.b. Failure Condition Classifications, you state “The failure condition classification appropriate for the equipment will depend on the intended use of the equipment in a specific aircraft. Document the loss of function and malfunction failure condition classification for which the equipment is designed.”</p> <p>However, it is not clear who gets this information, or how they can receive it.</p> <p>I suggest the data be clearly available to those involved with the installation of the TSO’ed equipment into the respective aerospace vehicle.</p> <p>Section 5.a.(1) currently reads: “Operating instructions and article limitations sufficient to describe the equipment’s operational capability.”</p>	<p>Suggest incorporating the requirement to provide specific requirement to document the loss of function and malfunction failure condition classification for which the equipment is designed within Section 5.a.(1).</p> <p>Suggest 5.a.(1) be modified as follows:</p> <p>Operating instructions and article limitations sufficient to describe the equipment’s operational capability. This includes the documentation of the loss of function and malfunction failure condition classification for which the equipment is designed</p>	Not accepted. The language used is consistent with Order 8150.1C.
9.	Ben Tyson ACE-119W 316.946.4174	3d Page 2	It is not clear how to interpret section 3.d. It could be interpreted that a deviation will need to be requested for anything other than DO-160G (e.g. H,	My suggestion: “Demonstrate the required performance under the test conditions specified in	Not accepted. The language used is consistent with Order 8150.1C.

Field Review Comment Metric

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	Commenter	Section # and Page #	Comment	Suggested Change and Rationale	Disposition
			<p>E, F, D chg 1,2,&3). Alternatively, the way this section is worded could be interpreted to mean that ANY environmental standard is okay, as long as it is “appropriate for the EFIS.” (according to whose definition of appropriate?)</p> <p>It should be made clear that any version of DO-160 after (and including) version D change 1,2,3 is acceptable, and anything else requires a deviation.</p> <p>(It is noted that a deviation to use an earlier, acceptable version of DO-160 is one that can be granted by the local ACO, but it would still need to be requested. It’s nicer for us if they don’t even have to ask)</p>	<p>SAE/AS6396, Section 5, and SAE/AS8034B, Section 5, using standard environmental conditions and test procedures of RTCA DO-160. (Note: We recommend that the applicant use the latest version of DO-160, currently DO-160G, but any version from DO-160D with Changes 1, 2, and 3, or later is acceptable.)(See AC 21-16G for more detailed discussion)”</p>	
10.	Ben Tyson ACE-119W 316.946.4174	6.f. Page 5	I disagree with putting the “results of environmental qualification tests” in Sec. 6, making submittal to the ACO only by request. This should be submitted with every TSOA request.	Item 6.f. should be moved to section 5 (i.e. create new 5.k.)	Not accepted. The language used is consistent with Order 8150.1C.
11.	Ben Tyson ACE-119W	5.a.(1) Page 3	The requirement for the following statement in the Installation Manual is	Include the requirement for this statement in Section 5.a.	Not accepted. The language used is consistent

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	Commenter	Section # and Page #	Comment	Suggested Change and Rationale	Disposition
	316.946.4174		missing, or was omitted: “The conditions and tests for TSO approval of this article are minimum performance standards. Those installing this article, on or in a specific type or class of aircraft, must determine that the aircraft installation conditions are within the TSO standards. TSO articles must have separate approval for installation in an aircraft. The article may be installed only according to 14 CFR part 43 or the applicable airworthiness requirements.”		with Order 8150.1C.